## MPE Calculation Method

 $E (V/m) = (30*P*G)^{0.5}/d$ 

Power Density: Pd  $(W/m2) = E^2/377$ 

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

 $Pd = (30*P*G) / (377*d^2)$ 

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well

as the gain of the used antenna, the RF power density can be obtained.

## Calculated Result and Limit(WORSE CASE IS AS BELOW) SISO:

AntennaGain	Peak Output	Power Density	Limit of Power	Test
(Numeric)	Power (mW)	(S) (mW/cm2)	Density (S) (mW/cm2)	Result
1.26(1dBi)	58.61 (17.68Bm)	0.0147	1	Compiles